

Central California Ozone Study (CCOS)
Emission Inventory Coordination Group Meeting

Meeting Highlights
August 31, 1999

Attendees

Affiliation

Toch Mangat	Bay Area AQMD
Brigette Tollstrup	Sacramento Metro AQMD
Dave Jones	San Joaquin Valley Unified APCD
Tom Jordan	San Joaquin Valley Unified APCD
Joan Merchen	San Joaquin Valley Unified APCD
Stephen Shaw	San Joaquin Valley Unified APCD
Gretchen Bennitt	Northern Sierra AQMD
Tom Roemer	San Luis Obispo County APCD
Guido Franco	California Energy Commission
Morris Goldberg	U.S. Environmental Protection Agency
Michael Benjamin	ARB
Andrew Ranzieri	ARB
Dale Shimp	ARB
Tina Suarez-Murias	ARB
Cheryl Taylor	ARB
Dennis Wade	ARB
Ed Yotter	ARB

1. Welcome and Meeting Highlights

Dale Shimp welcomed everyone to the call. Introductions were made. Highlights of the July 21 conference call were approved as written.

2. Comments on Replacement Section for the Emission Inventory Portion of the Draft CCOS Study Plan

The ARB prepared a draft replacement section for the emission inventory portion of the plan and sent it out to all participants. Two written comments were received. The first was from the Energy Commission (CEC). The EICG agreed to add to the emission forecasts section that the CEC would take the lead in developing emission forecasts for the electricity generating sector, in consultation with the local districts. The second written comment was from the BAAQMD. The BAAQMD suggested that the QA/QC section should discuss the use of independent observations to check the inventory estimates. Although the EICG is supportive of independent observations, the group decided not to include this comment in the plan since no funds are currently available for this work. The BAAQMD also provided additional verbal comments that will be included. The ARB will forward the emission inventory section to DRI after incorporating the comments. A second version will be available about the end of September. The study plan is available at ARB's web site at: <http://www.arb.ca.gov/ccaq/CCOS/docs>.

3. Status of Scoping Study for Collecting Day-Specific Traffic Count Data

The contract should be in place by late July for the scoping study with Dr. Debbie Niemeier of UC Davis. Dr. Niemeier is on schedule with the scoping study, which should be completed in

October. She has been discussing with each Traffic Management Center the gathering of day-specific data. The scoping study will also evaluate the use of remote sensing for the CCOS study.

4. Feedback from August 5, 1999, Technical Committee Meeting

Cheryl Taylor provided feedback from the August 5 Technical Committee meeting. Three emission inventory projects were presented for discussion. The projects were area source gridding surrogates, biogenics and VOC speciation. Because of work already being done, ARB suggested that parts of these projects could be scaled back. Since funds are limited, the Technical Committee recommended that these projects be condensed to what is critical for this study. After continued discussion of these projects in the EICG, revised proposals will be made at the next Technical Committee.

5. Discussion of Research Project Proposals

The Emission Inventory Coordination Group (EICG) discussed each of four research proposals. Following is a summary of each. The EICG discussed the priority of the projects that have yet to be funded. The EICG agreed to recommend for funding projects related to gridding surrogates, biogenic inventory and small district assistance. The CCOS study budget has adequate funds to cover these projects. The projects for urban vegetation for the Bay Area and remote sensing follow in priority but sources of funding have not been identified. A brief summary of these projects appears at the end of the meeting summary.

6. Emission Inventory Requirements for Districts in CCOS Domain

ARB is putting together a draft CCOS Emission Inventory Preparation Plan. This Preparation Plan is designed to list all the steps needed to develop the CCOS modeling inventories. Along with each step is the agency that will be accomplishing the task and the projected timeframe for completing the task. ARB will send this spreadsheet out soon for comments by the EICG.

7. Other Issues

ARB has now added a section to ARB's web site for the EICG. The URL is www.arb.ca.gov/ccags/CCOS/ccosei/ccosei.htm. The site allows you to access the current agenda, previous meeting minutes, timeline and research proposals. Feedback was positive from EICG members.

Shortly before the last meeting, ARB distributed two spreadsheets. One shows the 1996 NO_x and ROG emissions by district in the CCOS domain broken down into source type: stationary sources, area-wide sources, on-road motor vehicles, other mobile sources and natural sources. The other spreadsheet shows the number of facilities above a specified cutoff (e.g. 100 tpy ROG or NO_x) for the smaller districts in the CCOS. Some smaller counties do have some large facilities for which the EICG may wish to gather day-specific data. These spreadsheets show that many small districts in the CCOS domain do have large point sources and significant emissions that should be addressed in this study.

8. Plans for Next Meeting

The next conference call is scheduled for October 5 from 1:30 to 3:00 p.m.

Development of Base Year and Future Year Gridding Surrogates for Spatial Distribution of Area and Off-Road Source Emission Categories

The description of this project is basically the same with one difference. Data from the local councils of governments (COGs) such as population, housing, and employment will be gathered by Alpine Geophysics when they collect the transportation data needed to run DTIM. This will save some effort and minimize the requests of similar on local COGs.

Development of Input Databases for a Biogenic Hydrocarbon Emissions Inventory for the CCOS Modeling Domain

Michael Benjamin described the condensed biogenic project. After review of current research projects and work ARB can do in-house, the remaining work has been reduced to two specific tasks. This project would require the validation of two databases in the CCOS domain. The first database contains data for natural vegetation species (GAP) and the second contains the leaf area index (LAI) at a 30 meter resolution. This project would conduct field validation of the GAP and LAI databases at a number of sites in the CCOS domain. The cost of this work is estimated to be \$80,000, down considerably from the original estimate of \$230,000.

Small District Assistance

This project would provide assistance to small districts to review and update their emission inventories. Many of the local districts in the CCOS region have very limited resources for developing detailed emission inventories. A contractor will provide assistance to the districts to update large point sources, specified area source categories, and other data required for modeling inventories.

Urban Vegetation Species Distribution in the San Francisco Bay Area

Vegetation species distribution databases are one of the essential inputs to the models that estimate biogenic hydrocarbon emissions. The ARB has vegetation species distribution maps for natural and agricultural areas of the CCOS domain. Recent surveys have been completed in the Fresno area that could be used to represent the valley areas, but no recent surveys have been conducted in the San Francisco Bay Area. This project would use high-resolution satellite imagery to map the distribution, identity and biomass of vegetation species in the urbanized portion of the Bay Area. Conventional botanical surveys would then validate the data.

Emission Inventory Validation Studies

This project would evaluate the emission estimates from the CCOS modeling inventory by comparing the estimates with observations or quantities derived from observations. Specifically, this study would conduct remote sensing to measure NO_x, HC and CO exhaust concentrations from on-road motor vehicles. Representative sites in the CCOS domain would be sampled. Sites should be selected for different regions, vehicle ages, road grades and driving conditions for surface streets and freeway on-ramps. Measurements should include vehicle type, speed and acceleration along with exhaust concentrations.